

Claim Amendments:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 1-22 and add new claims 23 and 24 as indicated.

Claims 1.-22. (Canceled)

23. (New) A video transcoding system comprising:

a general purpose data processor comprising an input data port, and an output control port disposed at a semiconductor substrate;

a video transcoder disposed at the semiconductor substrate comprising

a video decoder,

a video encoder, including a Huffman encoder, coupled to receive decoded video data from the video decoder,

a storage area to store bits of compressed video data from the Huffman encoder in a bit level manner until a predefined amount of data is ready to be stored;

a memory controller disposed at the semiconductor substrate comprising a first data port to interface with a memory external the semiconductor substrate; and a second data port coupled to the input data port of the general purpose data processor and to the video transcoder;

a memory disposed at the semiconductor substrate comprising a plurality data words, each data word having a bit size of N, where N is based on a size of at least a portion of the second data port of the memory controller, each data word further having a first bit and a last bit; and

a bit level data access controller disposed at the semiconductor substrate to access bit level data, the data access controller comprising

an input data port coupled to the second data port of the memory controller,

an input control port coupled to the output control port of the general purpose processor,

and

a data shifter comprising an input port coupled to the memory, and an output port coupled to the input data port of the general purpose data processor, the data shifter to provide at its output port bit values that are shifted relative to their storage location within a data word of the plurality of data words based on a value received at the input control port.

24. (New) The system of claim 23, wherein the memory is dedicated to the bit level data access controller.